



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,665	08/24/2001	Olivier Ducreux	PET-1948	1027

23599 7590 06/04/2003

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201

EXAMINER

NORTON, NADINE GEORGIANNA

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 06/04/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,665

Applicant(s)

DUCREUX ET AL.

Examiner

Nadine Norton

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 23-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 23-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 and 23-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because the exact process steps are not clear. The claim fails to include any positive recitation of steps. It appears as if applicants intend to claim a hydroisomerization step followed by a separation step. If this is the case, it is suggested that applicants' amend the claims accordingly.

In claim 1, the meaning of the phrase "said secondary channels only being accessible to the feed to be separated via the principal channels" is unclear.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 29-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinnen et al.(5,744,684) in view of Krane et al.(3,150,205).

Applicants are claiming a process for producing a gasoline stock with a high octane. The process involves the hydroisomerization of a C5-C8 cut followed by absorption with a zeolite as defined in applicants' claims.

The reference of Zinnen et al.(5,744,684) discloses a process of treating a C5-C8 hydrocarbon feed. The process involves the processing of a feed obtained by conventional isomerization. See column 3, line 60 through column 4, line 8. The reference further teaches multiple adsorptive separation steps including the use of a zeolite in the form of EU-1, the production of multi-branched effluents, the production of non-branched hydrocarbons and linear paraffin recycling. See column 4, lines 7 through column 11, lines 11.

The reference of Zinnen et al.(5,744,684) succeeds in disclosing a process with steps corresponding to applicants' adsorption separation of a feed obtained from isomerization. In addition, the reference's disclosure of a EU-1 zeolite meets the structural limitations defined in applicants' claims.

It is noted that Zinnen et al.(5,744,684) does not refer to the process as yielding a high octane product. However, the reference's disclosure of the highly branched effluent is considered to meet applicants' high octane limitation because such a characteristic is indicative of high octane.

A difference is noted between the reference of Zinnen et al.(5,744,684) and applicants' claimed invention. It is noted that the reference is silent about the specific isomerization conditions employed to produce the feed in column 3, line 60 through column 4, line 8. In addition, the reference is silent about producing a high octane product.

Art Unit: 1764

The reference of Krane et al.(3,150,205) is cited to illustrate conventional isomerization conditions. Such conditions include the presence of hydrogen, a temperature of 300-900°F (149-315 °C), a pressure of 300-600 psi, and an upstream de-isopentanizer. See column 8, lines 10-15. Note: Such conditions overlap those claimed by applicants.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select any conventional conditions to produce the feed of Zinnen et al.(5,744,684), including the conventional hydroisomerization conditions disclosed by Krane et al.(3,150,205), because the reference of Zinnen et al.(5,744,684) does not restrict the isomerization conditions employed to produce the C5-C8 feed. One of ordinary skill would be motivated to select known/conventional isomerization conditions to accomplish the production of the feed. The combined teachings of Zinnen et al.(5,744,684) and Krane et al.(3,150,205) would encompass the structural limitations defined in applicants' dependent claims.

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. The attached references are cited to illustrate the relative state of the art with respect to hydrocarbon conversion processes involving isomerization followed by zeolitic adsorption.

Art Unit: 1764

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Norton whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 or After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.N.

May 31, 2003

NADINE G. NORTON
PRIMARY EXAMINER

